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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,167	03/29/2004	Matthew Compton	282566US8X	3011

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EXAMINER
VU, THONG H

ART UNIT	PAPER NUMBER
2619	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/812,167	COMPTON, MATTHEW	
	Examiner	Art Unit	
	Thong H. Vu	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Claims 1-21 are pending.

Response to Arguments

2. Applicant's arguments, see pages 2-6, filed 3/24/08, with respect to the rejection(s) of claim(s) 1-21 under Hundermer-Miyamoto have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of McCormack-Mayhew.

Claim Rejections - 35 USC § 101

3. the claimed invention 18-21 is directed to non-statutory subject matter.

i.e.: the program code, transmission medium and medium requires a computer-readable medium.

Claim Rejections - 35 USC § 112

4. Claims 1-21are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

i.e.: the packet comes from a network node or another data handling node from network are the same. There is no detail in specification or (a) and (b) indicates What condition, How and When a node identifies a type of header or the type of packet ID packet come from another node via network.

Claim Rejections - 35 USC § 103

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormack et al [McCormack 2004/0213206 A1] in view of Mayhew et al [Mayhew 2004/0128410 A1].

5. As per claim 1, McCormack discloses A network interface connectable to a packet-based data network on which a plurality of different types of payload data are distinguished by network-based packet header data; said network interface comprising:

a plurality of data handling nodes [McCormack, ATM devices, 0069]; and a routing arrangement responsive to a packet identifier for routing data packets between said data handling nodes; in which one of said data handling nodes is a network processor for receiving data packets from and transmitting data packets to said packet-based network [McCormack, Internet, 0033; a multi-protocol convergence switch 0034, 0042; routing table, 0062; packet ID, 0111]; said network processor being operable:

a) in the case of a data packet received from said data network, to detect a type of payload data from said network-based packet header data [McCormack, make intelligent decisions regarding how to transport different types of data through a network, 0072]; to remove said network-based packet header data from said packet [McCormack, strips the header from packet, 0098]; and to associate with said packet an identifier which specifies a route across said routing arrangement to a target data handling node [McCormack, the UDP and IP headers (or specified route) are added to the payload, 0083]

and a data handling operation to be carried out by said target data handling node [McCormack, the ATM signaling element 84 handles all other communication, 0069];

McCormack also taught detecting a type of payload data from said packet identifier [McCormack, recalculates the checksum based on packet content /type / ID, 0101]. However McCormack does not teach or suggest

b) in the case of a data packet (received from another data handling node and) having an associated packet identifier; to apply network-based packet header data in dependence on said packet identifier and to launch said data packet onto said network.

Mayhem taught an advanced switching fabric network including the different types of routing checks, 0075]; a packet type ID, create a packet header and to transmit said packet header to a second node [claim 5] such as a type of payload data from said packet identifier [Mayhew, a packet type identifier, claim 5]; to remove said packet identifier [Mayhew, packet encapsulating, claim 5]; to apply network-based packet header data in dependence on said packet identifier and to launch said data packet onto said network [Mayhew, a first node adapted (or dependent to a packet type ID) to create said packet header and to transmit said packet header to a second node or network, claim 5].

Therefore it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the technique of removing or encapsulating the Packet ID; create a header or header data to transmit the header and packet to the network as taught by Mayhew into the McCormack's apparatus in order to utilize the routing process and detecting or calculating the packet content.

Doing so would provide an advantage to the Internet switch capable of supporting different types of edge networks.

6. As per claim 2, McCormack-Mayhew disclose in which one of said data handling nodes is a data processing arrangement [McCormack, the ATM signaling element 84 handles all other communication, 0069].

7. As per claim 3, McCormack-Mayhew disclose in which one of said data handling nodes is a computer interface [McCormack, interface, 0096].

8. As per claim 4, McCormack-Mayhew disclose a type identifier defining a target data handling node and an action identifier defining a data handling operation to be carried out by said target data handling node [Mayhew, packet type identifier, claim 5].

9. As per claim 5, McCormack-Mayhew disclose in which said routing arrangement comprises a de-multiplexer for de-multiplexing different types of packets to different As per claim routing paths in dependence on said type identifier [McCormack, a TDM, 0169].

10. As per claim 6, McCormack-Mayhew disclose in which a respective multiplexer is associated with each data handling node, each multiplexer being arranged to receive data packets from said routing paths which have that data handling node as a target node [McCormack, TDM, 0169; destination address, 0117].

11. As per claim 7, McCormack-Mayhew disclose said types of payload data include audio data and video data; and one of said data handling nodes is an audio/video processor for extracting audio and/or video data from a packet payload and generating an output audio and/or video signal [McCormack, voice, video, 0048].

12. As per claim 8, McCormack-Mayhew disclose in the case of a data packet received from said data network having an audio or video data payload, said network processor is arranged to associate with said packet an action identifier which specifies whether said payload comprises audio or video data and a type identifier specifying said audio/video processor as said target data handling node; and said audio/video processor processes said data packet as audio data or as video data in dependence on said action identifier [McCormack, voice, video, 0048].

13. As per claim 9, McCormack-Mayhew disclose said network processor has an associated memory; said types of payload data include at least video data; and said network processor is operable in a second mode in which an incoming video data packet is stored in said memory at a storage location dependent upon said video data carried by that packet; said video data being subsequently read out for output via a data handling node [McCormack, voice, video, 0048].

14. As per claim 10, McCormack-Mayhew disclose in which said storage location depends on pixel position(s) relating to said video data [McCormack, voice, video, 0048].

15. As per claim 11, McCormack-Mayhew disclose in which said video data is read out from said memory substantially straight after being stored in said memory [McCormack, voice, video, 0048].

16. As per claim 12, McCormack-Mayhew disclose in which said video data is read out from said memory a predetermined delay period after being stored [McCormack, voice, video, 0048].

17. As per claim 13, McCormack-Mayhew disclose in which at least one of said types of payload data represents asynchronous data to be carried by said network [McCormack, ATM, 0016].

18. As per claim 14 McCormack-Mayhew disclose A data network comprising: a plurality of data handling nodes, each having a network interface according to claim 1; and a data network connecting said data handling nodes via said respective network interfaces [see rejection claim 1].

19. As per claim 15, McCormack-Mayhew disclose in which each data handling node comprises a source and/or a sink of data according to at least one of said types of payload data as inherent feature of Internet.

20. As per claim 16 McCormack-Mayhew disclose A data handling node having a source and/or a sink of data according to at least one of said types of payload data; and a network interface according to claim 1 as inherent feature of Internet.

21. As per claim 17 McCormack discloses A method of operation of a network interface connectable to a packet-based data network on which a plurality of different types of payload data are distinguished by network-based packet header data; said network interface comprising a plurality of data handling nodes; and a routing arrangement responsive to a packet identifier for routing data packets between said data handling nodes; in which one of said data handling nodes is a network processor for receiving data packets from and transmitting data packets to said packet-based network [McCormack, Internet, 0033; a multi-protocol convergence switch 0034, 0042; routing table, 0062; packet ID, 0111]; said method comprising the steps of:

a) in the case of a data packet received from said data network, detecting a type of payload data from said network-based packet header data [McCormack, make intelligent decisions regarding how to transport different types of data through a network, 0072]; and associating with said packet an identifier which specifies a route across said routing arrangement to a target data handling node [McCormack, the UDP and IP headers (or specified route) are added to the payload, 0083];

and a data handling operation to be carded out by said target data handling node [McCormack, the ATM signaling element 84 handles all other communication, 0069];

McCormack also taught detecting a type of payload data from said packet identifier [McCormack, recalculates the checksum based on packet content or packet ID, 0101]. However McCormack does not teach or suggest

b) in the case of a data packet received from another data handling node and having an associated packet identifier, applying network-based packet header data in dependence on said packet identifier; and launching said data packet onto said network.

Mayhem taught an advanced switching fabric network including the different types of routing checks, 0075]; a packet type ID, create a packet header and to transmit said packet header to a second node [claim 5] such as a type of payload data from said packet identifier [Mayhew, a packet type identifier, claim 5]; to remove said packet identifier [Mayhew, packet encapsulating, claim 5]; to apply network-based packet header data in dependence on said packet identifier and to launch said data packet onto said network [Mayhew, a first node adapted (or dependent to a packet type ID) to

create said packet header and to transmit said packet header to a second node or network, claim 5].

Therefore it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the technique of removing or encapsulating the Packet ID; create a header or header data to transmit the header and packet to the network as taught by Mayhew into the McCormack's apparatus in order to utilize the routing process and detecting or calculating the packet content.

Doing so would provide an advantage to the Internet switch capable of supporting different types of edge networks.

22. As per claim 18 McCormack-Mayhew disclose Computer software having **program code** for carrying out a method according to claim 17 [McCormack, software element, 0049].

23. As per claim 19 McCormack-Mayhew disclose A providing **medium** by which software according to claim 18 is provided [McCormack, software element, 0049].

24. As per claim 20, McCormack-Mayhew disclose said **medium** being a storage medium [Mayhew, storage medium, 0127].

25. As per claim 21, McCormack-Mayhew disclose said **medium** being a transmission medium [Mayhew, storage medium, 0127].

26. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa et al [Ozawa 7,023,858 B2] in view of Bailey et al [Bailey 2002/0107971 A1]

27. As per claim 1, Ozawa discloses A network interface connectable to a packet-based data network on which a plurality of different types of payload data are distinguished by network-based packet header data [Ozawa, Internet 44, Fig 1]; said network interface comprising:

a plurality of data handling nodes [Ozawa, service provider 10, Fig 1]; and a routing arrangement responsive to a packet identifier for routing data packets between said data handling nodes; in which one of said data handling nodes is a network processor for receiving data packets from and transmitting data packets to said packet-based network [Ozawa, demultiplexer and packet ID, audio, video, data type col 5 lines 36-59]; said network processor being operable:

b) in the case of a data packet received from another data handling node and having an associated packet identifier; to detecting a type of payload data from said packet identifier; to remove said packet identifier; to apply network-based packet header data in dependence on said packet identifier and to launch said data packet onto said network [Ozawa, table ID filtering, the VCI is replaced the packet ID or packet type, col 3 lines 44-66].

An Official Notice is taken that the data type or payload type based on the pakcet ID [see Settle, col 5lines 20-35]

However Ozawa does not teach or suggest

a) in the case of a data packet received from said data network, to detect a type of payload data from said network-based packet header data; to remove said network-based packet header data from said packet; and to associate with said packet an

identifier which specifies a route across said routing arrangement to a target data handling node and a data handling operation to be carried out by said target data handling node;

It was well-known in the art that a demultiplexing operation could remove unneeded header information to prepare the data to be displayed [see Coffin, col 2 lines 49-64]

In the same endeavor, Bailey taught an network transport accelerator including verifies fields of the packet header and decides on an outgoing port to which it forwards packet [Bailey, 0052] stripping some of the header data and replaced with an identifier or tag that is provided to the transport processing engine [Bailey, 0063-0065].

Therefore it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the technique of removing or replacing the header data and associated with an identifier which specifies /provides and route to the destination as taught by Bailey into the Ozawa's apparatus in order to utilize the routing process and detecting or calculating the packet ID or type of content.

Doing so would provide an advantage to the Internet switch/server capable of supporting different types of edge networks.

28. As per claim 2, Ozawa-Bailey disclose in which one of said data handling nodes is a data processing arrangement [Ozawa, provider, 10, Fig 1].

29. As per claim 3, Ozawa-Bailey disclose in which one of said data handling nodes is a computer interface [Ozawa, provider 10, Fig 1].

30. As per claim 4, Ozawa-Bailey disclose a type identifier defining a target data handling node and an action identifier defining a data handling operation to be carried out by said target data handling node [Ozawa, Fig 1].

31. As per claim 5, Ozawa-Bailey disclose in which said routing arrangement comprises a de-multiplexer for de-multiplexing different types of packets to different As per claim routing paths in dependence on said type identifier [Ozawa, demux, col 9 lines 49-64].

32. As per claim 6, Ozawa-Bailey disclose in which a respective multiplexer is associated with each data handling node, each multiplexer being arranged to receive data packets from said routing paths which have that data handling node as a target node [Ozawa, mux, col 9 lines 1-15].

33. As per claim 7, Ozawa-Bailey disclose said types of payload data include audio data and video data; and one of said data handling nodes is an audio/video processor for extracting audio and/or video data from a packet payload and generating an output audio and/or video signal [Ozawa, MPEG, col 2 lines 3-55].

34. As per claim 8, Ozawa-Bailey disclose in the case of a data packet received from said data network having an audio or video data payload, said network processor is arranged to associate with said packet an action identifier which specifies whether said payload comprises audio or video data and a type identifier specifying said audio/video processor as said target data handling node; and said audio/video processor processes said data packet as audio data or as video data in dependence on said action identifier [Ozawa, MPEG, col 2 lines 3-55].

35. As per claim 9, Ozawa-Bailey disclose said network processor has an associated memory; said types of payload data include at least video data; and said network processor is operable in a second mode in which an incoming video data packet is stored in said memory at a storage location dependent upon said video data carried by that packet; said video data being subsequently read out for output via a data handling node [Ozawa, MPEG, col 2 lines 3-55].

36. As per claim 10, Ozawa-Bailey disclose in which said storage location depends on pixel position(s) relating to said video data [Ozawa, MPEG, col 2 lines 3-55].

37. As per claim 11, Ozawa-Bailey disclose in which said video data is read out from said memory substantially straight after being stored in said memory [Ozawa, MPEG, col 2 lines 3-55].

38. As per claim 12, Ozawa-Bailey disclose in which said video data is read out from said memory a predetermined delay period after being stored [Ozawa, MPEG, col 2 lines 3-55].

39. As per claim 13, Ozawa-Bailey disclose in which at least one of said types of payload data represents asynchronous data to be carried by said network [Ozawa, ATM, col 2 lines 3-55].

40. As per claim 14 Ozawa-Bailey disclose A data network comprising:
a plurality of data handling nodes, each having a network interface according to claim 1; and a data network connecting said data handling nodes via said respective network interfaces [see rejection claim 1].

41. As per claim 15, Ozawa-Bailey disclose in which each data handling node comprises a source and/or a sink of data according to at least one of said types of payload data as inherent feature of Internet.

42. As per claim 16 Ozawa-Bailey disclose A data handling node having a source and/or a sink of data according to at least one of said types of payload data; and a network interface according to claim 1 as inherent feature of Internet.

43. Claims 17-21 contain the identical limitations set forth in claims 1-16. Therefore claims 17-21 are rejected for the same rationale set forth in claims 1-16.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong H. Vu whose telephone number is 571-272-3904. The examiner can normally be reached on 6:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thong H Vu/
Primary Examiner, Art Unit 2619